Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. (original) A method of detecting and eliminating narrowband interference in a wideband communication signal having a frequency bandwidth with narrowband channels disposed therein, the method comprising:

scanning at least some of the narrowband channels to determine signal strengths in at least some of the narrowband channels;

determining a threshold based on the signal strengths in at least some of the narrowband channels;

identifying narrowband channels having signal strengths exceeding the threshold;

assigning filters to at least some of the narrowband channels having signal strengths exceeding the threshold;

determining if the assigned filters are operating properly; and

bypassing any of the assigned filters that are not operating properly.

2. (original) The method of claim 1, wherein determining if the assigned filters are operating properly comprises reading outputs of the assigned filters.

3. (original) The method of claim 2, wherein the assigned filters are determined not to be operating properly if narrowband interference is present at the outputs.

4. (original) The method of claim 1, comprising coupling a known interferer into one of the assigned filters and determining if the known interferer is present at an output of the one of the assigned filters.

5. (original) The method of claim 4, comprising bypassing the one of the assigned filters if the known interferer is present at the output of the known interferer.

6. (original) A system adapted to detect and eliminate narrowband interference in a wideband communication signal having a frequency bandwidth with narrowband channels disposed therein, the system comprising:

a scanner adapted to scan at least some of the narrowband channels to determine signal strengths in at least some of the narrowband channels;

a notch module adapted to receive the wideband communication signal and to selectively remove narrowband interference from the wideband communication signal to produce a filtered wideband communication signal;

a bypass switch adapted to bypass the notch module when the bypass switch is enabled; and

a controller coupled to the scanner and to the notch module, wherein the controller is adapted to determine a threshold based on the signal strengths in at least some of the narrowband channels, to identify narrowband channels having signal strengths exceeding the threshold, to control the notch module to filter the wideband communication signal at a frequency corresponding to a narrowband channel having a signal strength exceeding the threshold, to determine if the notch module is operating properly and to enable the bypass switch when the notch module is not operating properly.

7. (original) The system of claim 6, further comprising an analog to digital converter coupled to an output of the notch module and to the controller, wherein the controller is adapted to control the analog to digital converter to read the output of the notch module and to determine if the notch module is operating properly based on information provided to the controller from the analog to digital converter.

8. (original) The system of claim 7, wherein the notch filters are determined not to be operating properly if narrowband interference is present at the notch filter output.

9. (original) The system of claim 8, further comprising an interference generator that is coupled to an input of the notch filter and to the controller, wherein the controller is adapted to control the interference generator to couple a known interferer into the notch module and to control the analog to digital converter to read the output of the notch module and to determine if the notch module is operating properly.

10. (original) The system of claim 9, wherein the notch module is not operating properly if interference is present at the output of the notch module and wherein the controller controls the bypass switch to bypass the notch module when interference is present at the output of the notch module.

11 (withdrawn). A method of detecting and eliminating narrowband interference in a wideband communication signal having a frequency bandwidth with narrowband channels disposed therein, the method comprising:

scanning at least some of the narrowband channels to determine signal strengths in at least some of the narrowband channels;

determining a threshold based on the signal strengths in at least some of the narrowband channels;

identifying fading narrowband channels having signal strengths that do not exceed the threshold and that were previously identified as exceeding the threshold, based on how long the identified narrowband channels have not exceeded the threshold; and

filtering the wideband communication signal at a frequency corresponding to a fading narrowband channel.

12 (withdrawn). The method of claim 11, comprising de-assigning filters from narrowband channels having signal strengths below the threshold that are not identified as having fading interference.

13 (withdrawn). The method of claim 11, wherein a narrowband channel is identified as a fading narrowband channel when its signal strength is below the threshold for less than 20 milliseconds.

14 (withdrawn). A system adapted to detect and eliminate narrowband interference in a wideband communication signal having a frequency bandwidth with narrowband channels disposed therein, the system comprising:

a scanner adapted to scan at least some of the narrowband channels to determine signal strengths in at least some of the narrowband channels in an order representative of a probability that the narrowband channels will have interference;

a notch module adapted to receive the wideband communication signal and to selectively remove narrowband interference from the wideband communication signal to produce a filtered wideband communication signal; and

a controller coupled to the scanner and to the notch module, wherein the controller is adapted to determining a threshold based on the signal strengths in at least some of the narrowband channels, to identify fading narrowband channels having signal strengths that do not exceed the threshold and that were previously identified as exceeding the threshold, based on how long the identified narrowband channels have not exceeded the threshold and to

control the notch module to filter the wideband communication signal at a frequency corresponding to a fading narrowband channel.

15 (withdrawn). The system of claim 14, wherein the controller is adapted to de-assigning notch modules from filtering narrowband channels having signal strengths below the threshold that are not identified as having fading interference.

16 (withdrawn). The system of claim 14, wherein the controller is adapted to identify a narrowband channel as a fading narrowband channel when its signal strength is below the threshold for less than 20 milliseconds.

17 (new). The method of claim 1, further comprising identifying fading narrowband channels having signal strengths that do not exceed the threshold and that were previously identified as exceeding the threshold, based on how long the identified narrowband channels have not exceeded the threshold.

18 (new). The method of claim 17, wherein a narrowband channel is identified as a fading narrowband channel when its signal strength is below the threshold for less than 20 milliseconds.

19 (new). The system of claim 6, wherein the controller is further adapted to identify fading narrowband channels having signal strengths that do not exceed the threshold and that were previously identified as exceeding the threshold, based on how long the identified narrowband channels have not exceeded the threshold and to control the notch module to filter the wideband communication signal at a frequency corresponding to a fading narrowband channel.

20 (new). The system of claim 19, wherein the controller is further adapted to identify a narrowband channel as a fading narrowband channel when its signal strength is below the threshold for less than 20 milliseconds.